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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,525	11/25/2003	Jung Kan Lin	MR1035-1341	5129
4586	7590	01/11/2006	EXAMINER	
ROSENBERG, KLEIN & LEE 3458 ELLICOTT CENTER DRIVE-SUITE 101 ELLICOTT CITY, MD 21043			VARGOT, MATHIEU D	
			ART UNIT	PAPER NUMBER
			1732	
DATE MAILED: 01/11/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/720,525

Applicant(s)

LIN, JUNG KAN

Examiner

Mathieu D. Vargot

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art as set forth at paragraph 6 of the instant specification in view of Lee et al (see Fig. 3; col. 5, lines 21-25 and col. 6, lines 1-11).

The admitted prior art teaches that it is known to use a liquid glue encapsulation method to dispense epoxy resin combined with phosphorous powder onto an LED die on a substrate to thereby encapsulate the LED, the admitted prior art essentially failing to use a casting mold. Lee et al discloses making a panel of packaged integrated circuits by aligning a substrate holding the circuits against a casting mold with a plurality of casting units whereby a plurality of integrated circuit units are encapsulated simultaneously. It would have been obvious to one of ordinary skill in the art at the time of invention to have modified the admitted prior art by using a mold as taught by Lee et al to form a plurality of packaged electronic items simultaneously. The aspect of precipitating the phosphor is submitted to have been obvious or met in the combination as applied in that the mold would have allowed the phosphor powder to sink down in the liquid before it hardens. Applicant appears to indicate in the prior art that the lack of a mold does not allow the phosphor powder to concentrate upon the LED die of the prior art --see paragraphs 5 and 6 of the instant specification. Hence, the use of a mold should allow the phosphor to precipitate on the LED units while the liquid epoxy

hardens. Preheating the mold would have been an obvious step to facilitate the flowing of the resin thereinto. Lee et al teaches cutting the encapsulated substrate into a plurality of packaged devices—see column 6, lines 1-11. Lee et al shows a single mold for the casting mold. However, it certainly would have been within the skill level of the art to modify this mold by providing a separate base as part of a two-part mold. Lee et al (col. 5, lines 21-25) teaches removing gases from the mold as the molding compound is spread through the mold and this is submitted to meet the limitation of instant claim 10, in that gases would cause bubbles in the resin. Forming additional glue layers over the phosphoric epoxy is submitted as being an obvious addition to the combination as applied dependent on the size of packaging desired for the LED.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mathieu D. Vargot whose telephone number is 571 272-1211. The examiner can normally be reached on Mon-Fri from 9 to 6.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni, can be reached on 571 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Vargot
January 6, 2006


Mathieu D. Vargot
Primary Examiner
Art Unit 1732

1/6/06